

## **APPENDIX 2: BINS INITIAL SCOPE OF WORK**



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### **INTRODUCTION**

Since the passage of the North American Free Trade Agreement (NAFTA) the U.S.-Mexico cross-border movement of both people and goods has had robust growth. This growth has placed pressure on the existing transportation infrastructure and has underscored the need for improved binational coordination, planning, and development of transportation facilities. For example, in California, trade activity with Mexico has surpassed Japan and Canada to becoming California top trade partner, with more than \$29 billion in annual trade. The value of goods in California represents an increase of approximately 149% since 1994. In an effort to redefine current and anticipated transportation infrastructure needs along the border region, the U.S.-Mexico Joint Working Committee (JWC) will be conducting a binational border transportation infrastructure needs assessment study.

The JWC consists of transportation and planning agency representatives from the four U.S. states and six Mexican states that abut the border and representatives from selected federal agencies from both the U.S. and Mexican governments. Key components to be undertaken in this study will include the implementation of a thorough data collection effort of transportation facilities, and identification and assessment of major trans-border corridors and projects. The findings resulting from this study also will provide input to the reauthorization of the Transportation Equity Act for the 21<sup>st</sup> Century (TEA 21) in order to ensure future financing for international border transportation investment needs. On the U.S. side, SourcePoint, a nonprofit corporation chartered by the San Diego Association of Governments (SANDAG) will serve as the lead agency on behalf of the California Department of Transportation (CALTRANS) and the Secretariat of Infrastructure and Urban Development of the State of Baja California (SIDUE) – formerly the Secretariat of Human Settlements and Public Works of the State of Baja California (SAHOPE) - is to serve as the lead agency on the Mexican side.

### **BACKGROUND**

Within the United States, TEA-21, PL 105-178, which became law 9 June 1998, provided some dedicated resources to address the needed increased transportation facilities in Sections 1118 (National Corridor Planning and Development Program) and 1119 (Coordinator Border Infrastructure Program). However, these programs have not provided sufficient funding to cover border area transportation needs and these sections of TEA-21 are to terminate with TEA-21 at the end of the 2003 federal fiscal year.

TEA-21, Section 1213(d), Southwest Border Transportation Infrastructure, called for the Secretary of the Department of Transportation to “conduct a comprehensive assessment of the state of the transportation infrastructure on the southwest border between the United States and Mexico”. This study was undertaken; however, it did not perform a transportation corridor analysis and needs assessment for the U.S.-Mexico border region. The study to be undertaken as described in the next

section is intended to carry out a transportation corridor analysis and needs assessment and other efforts not performed by the above report.

## **PROJECT DESCRIPTION**

The proposed Binational Border Transportation Infrastructure Needs Assessment Study (BINS) will be the product of a coordinated effort of transportation and planning agencies within the ten U.S. and Mexican Border States. Findings resulting from this study are expected to reflect an innovative and comprehensive approach to identifying border transportation deficiencies, issues, and recommendations that will address the following goals and objectives:

1. Establish a broadly accessible border-wide data bank with protocol for an ongoing updating process; closely coordinate the development of the databank with work on the Binational Geographic Information System tasks.
2. Update border region transportation infrastructure needs;
3. Identify major trans-border transportation corridors within the 100 kilometers band in the U.S. and in Mexico;
4. Assess the transportation infrastructure needs of these corridors to adequately serve present and future cross-border travel and trade;
5. Identify necessary projects and their estimated costs to address short-term (now) and long-term, as defined by the JWC;
6. Explore traditional and innovative funding mechanisms to remedy the identified needs;
7. Identify existing and proposed major traffic generators that may significantly impact these Binational transportation corridors (e.g. 1. large commercial/industrial developments, 2. international airport expansions, 3. major intermodal facilities); and
8. Develop and make broadly accessible a preliminary Binational Geographic Information System (BGIS) platform for transportation within the U.S.-Mexico border region.

## **Study Organization and Participation**

It is proposed to undertake the subject study in two separate efforts. First, SourcePoint will be responsible for completing the initial seven goals and objectives and, second, CALTRANS headquarters staff will be responsible for carrying out the eighth objective listed above (BGIS). Although discussion of the BGIS is limited in this document, it is necessary to integrate the two projects to ensure compatibility of the information collected. A preliminary scope of work for the BGIS is included in Attachment I for reference. SourcePoint will be expected carry out the services set in the BINS effort and work cooperatively with CALTRANS and others to ensure coordination between the two separate efforts, BINS and BGIS. A detailed scope of work for the BINS effort is set in the following section (Phase I, I-A, and II), and is comprised of three phases as follows:

- Phase I: Data Collection Framework – presently funded for a maximum of \$150,000;
- Phase I-A: California Transportation Corridor Assessment, Evaluation, and Recommendations – presently funded at a maximum of \$40,000; and

- Phase II: Transportation Corridor Assessment, Evaluation Criteria, and Recommendations for Remaining Agencies – presently funded for a maximum of \$150,000.

SourcePoint on behalf of CALTRANS will serve as the lead agency in coordination with the Secretariat of Infrastructure and Urban Development of the State of Baja California (SIDUE) – formerly the Secretariat of Human Settlements and Public Works of Baja California (SAHOPE) – for all phases of the BINS effort. All references to written deliverables in the following scope of work include at least one draft and one final version, unless otherwise specified. CALTRANS, the JWC Subcommittee, and the JWC member agencies will review all draft versions. Comments will be integrated into the final version of the deliverable. The time to review and comment on the drafts of the task reports by the JWC member agencies will be scheduled to not exceed two weeks from the time the deliverables are received. Throughout completion of the study SourcePoint or represented Consultant will be required to attend out-of-state JWC meetings, and meetings with CALTRANS District staff as appropriate.

## **Area of Study and Border Corridors**

It is understood that for the purpose of data collection the “area of study” is the border region defined as 100 kilometers on each side of the international border for Phase I and IA. Phase II of the BINS work efforts is to place emphasis on certain “border corridors” that will be agreed upon by the JWC Subcommittee.

## **Schedule and Budget**

SourcePoint’s services for this project will entail the completion of those elements identified in the scope of work within the project budget described above. All work expected under this study is anticipated to be completed by the proposed schedule and corresponding budget as outlined in detail in the scope of work section.

## **JWC Subcommittees**

All work conducted by the SourcePoint will be under the support of CALTRANS and the U.S.–Mexico Joint Working Committee (JWC) appointed Technical subcommittees; the Border Infrastructure Needs Assessment (BINS) Committee and the Binational Geographic Information Systems (BGIS) Technical Committee. Members of both the BINS and BGIS will include representatives of the JWC member agencies and will include transportation officials of the four U.S. and six Mexican states and representatives from selected federal agencies from both the U.S. and Mexican governments.

## **SCOPE OF WORK**

The subsequent sections outline the major activities seen as necessary to the deliver the BINS project. Key to the BINS effort is that SourcePoint have the ability to coordinate and extensive data collection effort and processing, work cooperatively with the JWC Technical Committee members,

and have an understanding of border transportation issues. The tasks to be undertaken will include but are not limited to the following:

## **PHASE I: Data Collection Framework**

SourcePoint will develop and implement a data collection and literature review strategy as described below. It is essential that the needs of the JWC be identified to assure that the appropriate data be collected to ensure the support of subsequent tasks included in Phase I-A, and Phase II. It is expected that Phase I will be completed by March 2003. Specific tasks to be carried out in this phase shall include:

### ***Task 1: Literature Review***

SourcePoint will identify, review, and annotate applicable literature addressing border region transportation and its growth and adequacies as requested by JWC member agencies. Sample literature will include, but not limited to, a summary of the economic and other forces driving the need for border transportation improvements, federal and state legislation from both the U.S. and Mexico, updated information or planning studies, and border type studies relating to the growth and operation of the border region's transportation system. This task is to remain open so that it is up to date at the termination of the BINS project.

### ***Task 2: Data Requirements***

Work closely with JWC BINS Committee members to identify data requirements to be used by each state to determine their border area transportation infrastructure needs. Prepare sample summary sheets (hard copy and electronic) with examples of data requirements developed for similar projects including, but not limited to, the types of data requirements provided in Attachment II. Prepare and submit a Data Requirements Memo that will incorporate the sample summary sheets for presentation, review, and approval. Submit memo to BGIS Committee for comments.

Upon approval of the data requirements, SourcePoint will develop suitable bilingual forms to be used by each U.S. and Mexican State to aggregate their input. SourcePoint will review the forms with CALTRANS and SIDUE (formerly SAHOPE), and after their approval, develop and present a technical report covering data requirements to the JWC BINS Committee.

The data requested from each Border State is to be that judged necessary to support implementation of border region transportation infrastructure needs to the year 2020 as well as present needs. The data, as a minimum, is to address the following components:

- Ports of Entry (POE)
- Highways
- Railroads
- Intermodal facilities
- Seaports handling significant international cargo
- International airports

- Population, housing units, employment and income (present and as projected for 2020 for each region or subregion by volume and annual estimated growth percent)

#### **Deliverable**

- 1. Prepare a Data Requirements Memo**
- 2. Data Requirements Technical Report**

#### ***Task 3: Request Data***

Upon approval of data collection forms for data input, SourcePoint will request data from each of the Border States and follow up request as warranted with the JWC BINS Committee. SourcePoint will respond to questions that may arise and produce a report consolidating the data from the various states for review.

It is anticipated that many agencies will have existing readily available data in different formats including databases, maps, and documents. It is also anticipated that there will be inconsistencies in available data between each agency. SourcePoint will be responsible for consolidating and assessing the quality of data received and will work cooperatively to provide the necessary support to the JWC BINS Committee members to ensure that the appropriate data is included in the data collection forms. Coordinate data review with BGIS Committee.

SourcePoint will prepare and present status reports to CALTRANS and the JWC BINS Committee that will briefly address the progress, the quantity, and quality of data received, and identifies any problems or issues encountered during this process.

#### **Deliverable**

- 3. Data Requests Progress Reports – to be presented to Coincide with JWC meetings**

#### ***Task 4: Database System Plan***

SourcePoint will develop criteria and recommendations for establishing a border-area database. Each state shall be responsible for implementing and maintaining their state's database. The BGIS Committee will review the database system plan.

SourcePoint will prepare a Database System Plan that will define possible recommendations for consolidating and managing the data, and defining how the database will be structured and formatted to meet the needs of its prospective users. The Plan will also document technical or other related issues such as database management, maintenance, and reporting capabilities. Recommendations will need to be coordinated with other CALTRANS or JWC ongoing efforts to ensure consistency and allow for future integration such as:

- Review and update as necessary the Database developed under the U.S. Mexico Binational Border Transportation Planning and Programming Study. Tasks reports are available at the following FHWA website: [www.fhwa.dot.gov/binational/reports/reports.html](http://www.fhwa.dot.gov/binational/reports/reports.html)
- Coordination with BGIS data gathering related efforts;

- To provide a brief description on software available that is compatible with GIS applications with specific reference to CALTRANS/JWC current and future GIS efforts.

#### **Deliverable**

#### **4. Border-Area Database System Plan**

#### ***Task 5: Final Report, Phase I***

SourcePoint will produce a Phase I final report that will document and incorporate all deliverables included in the previous tasks. The report is to include updated literature review (an annotated bibliography) and the final versions of all deliverables generated by Phase I of the study, the data from the other border states, and any issues or problems that should be addressed in Phase II.

#### **Deliverable**

#### **5. Phase I Final Report**

### **PHASE I-A: California Transportation Corridor Assessment, Evaluation, and Recommendations**

Based on reports, work efforts and deliverables from the previous phase, SourcePoint will consolidate and present data focused on California transportation corridors. Work efforts under this phase will parallel key activities undertaken in Phase II. Subsequently, the intent is to apply the evaluation criteria/factors developed under the BINS Phase II efforts, and working with CALTRANS to develop and identify evaluation criteria/factors specific to California's needs. The evaluation criteria/factors will be used for prioritizing transportation corridors, and perform a border infrastructure needs assessment intended to result in recommended transportation projects to satisfy needs of border-oriented transportation corridors serving California. This phase is funded by the State of California at the maximum amount of \$40,000, and is expected to be completed by May 2003. Specific tasks to be carried out in this phase shall include:

#### ***Task 1: California Data***

Upon completion of data collection effort, SourcePoint will assemble all data covering the California region. SourcePoint will review the results with all the appropriate agencies in California including CALTRANS, the Southern California Association of Governments, the Imperial Valley Association of Governments, and others as found appropriate.

#### **Deliverable**

#### **6. California Data Report**

#### ***Task 2: California Transportation Corridor – Evaluation Factors***

SourcePoint will apply evaluation criteria/factors developed under the BINS Phase II efforts, and or additional criteria to be determined CALTRANS for determining priority corridors to serve the binational border within or, in the case of I-10, adjacent to the border region of California.



SourcePoint and CALTRANS will mutually define the extent of factors, and detail analysis to be undertaken for this effort. The results of this task will be used to 1) determine priority corridors and 2) measure the corridor and/or infrastructure deficiencies and needs. A preliminary list of evaluation criteria to be considered is described in Attachment III. The proposed criteria should also include existing and proposed major traffic generators along the individual corridors that may significantly impact traffic, travel time, and the environment.

#### **Deliverable**

### **7. California Corridor Evaluation Factors Report**

#### ***Task 3: California Transportation Corridors – Present and Future Needs***

SourcePoint will perform a Border Analysis Infrastructure Needs Assessment Study for the California region. The Study will determine priority corridors to serve the binational border and identify infrastructure needs and deficiencies along these corridors and will also look at funding related issues, such as identifying existing possible funding resources or innovative financing strategies to address deficiencies/needs.

#### **Deliverable**

### **8. Border Analysis Infrastructure Needs Assessment Study – California Region**

#### ***Task 4: Final Report***

SourcePoint will produce a final report to document the completed study. The final Report will include updated literature review (an annotated bibliography) and will compile final versions of all deliverables produced in this phase.

#### **Deliverable**

### **9. Phase I-A Final Report**

## **PHASE II: Transportation Corridor Assessment, Evaluation Criteria, and Corridor Recommendations for Remaining Agencies**

Phase II is designed to supplement the work elements undertaken under Phase I and IA and will focus on carrying out the transportation corridor assessment effort for the remaining agencies. Additional key efforts will include reviewing the corridor data from all the participating agencies, the development of evaluation criteria and factors for evaluating and prioritizing transportation corridors, and performing a border system wide infrastructure needs assessment, and submitting corridor and project level recommendations. SourcePoint or represented Consultant is expected carry out, coordinate, and provide the necessary services as described below. It is expected that Phase II will be completed by November 2003.

### ***Task 1: Data Review and Identify Key Corridors***

Once all the data is reviewed, consolidated, and assessed for quality per Task 3 of Phase I, SourcePoint will work with the JWC BINS Committee to identify key current and projected north/south transportation corridors serving the U.S.-Mexico border and the east/west corridors necessary to distribute or accommodate border traffic. The selection of these corridors should take into account, as a minimum, location of facilities, owner/operator information, and any other information on existing and future operations including connections between modes. Additional corridor elements should be based on data findings completed under Tasks 2 of Phase I (refer to Attachment II).

#### **Deliverable**

#### **10. Key Borders Corridor Report**

### ***Task 2: Development of Corridor Evaluation Criteria***

After SourcePoint and the JWC BINS Committee submit their identified key corridors, SourcePoint will work with the JWC BINS Committee to develop an evaluation criteria/factors to be used by the individual Border States to prioritize their identified transportation corridors, and projects within corridors. After JWC BINS Committee approval of the evaluation criteria/factors, SourcePoint will disseminate the evaluation criteria to the participating agencies along the nine Bordering States and request that each agency perform a priority corridor evaluation analysis, and come up with corresponding project improvements. Project corridor evaluation criteria/factors shall address such issues as:

- Capacity (uniform standards need to be developed)
- System continuity
- Level of Service (LOS – volume/demand to capacity)
- Costs
- Environmental Impacts
- Safety
- Enforcement
- Travel Time
- Cost Benefit
- Socioeconomic Changes
- Land Use Compatibility
- Short-term Completion Potential
- Intelligent Transportation System

#### **Deliverable**

#### **11. Corridor Evaluation Criteria/Factors Technical Memo**

#### **12. Corridor Evaluation Analysis Results and Proposed Corresponding Projects Memo**

### ***Task 3: Corridor and Project Review***

As the participating agencies submit their corridor evaluation analysis, SourcePoint will work the JWC BINS Committee to review their findings for criteria/factors conformance, and review the corresponding corridor projects as submitted by the agencies. Key efforts will include ensuring that the submitted priority corridors are indeed essential to cross-border interstate and international goods movement from both the U.S. and Mexican side. SourcePoint will then prepare and submit an aggregate priority corridor list/findings and preliminary corresponding corridor project improvements to the JWC for their review and comments.

#### **Deliverables**

##### **13. Final Corridor Priority List/Findings and Project Improvements Memo**

### ***Task 4: Corridor Project Recommendations***

Upon review of the Corridor Priority List/Findings, and comments and approval of the corridor project improvements by the JWC, SourcePoint will work with the BINS Committee to develop and performing a border system wide infrastructure needs assessment. The border system wide infrastructure needs assessment will include discussions on key project elements such as setting short and long-term priorities, and the identification of possible funding resources. Additionally, SourcePoint will work with the JWC to develop a prioritized list of provisions for inclusion in TEA 21 reauthorization, and legislation for Mexico's federal government that support international border transportation corridor related projects. Possible funding sources for the project priority list may include:

- Existing Federal or State resources available
- Possible future legislation resources
- Possible innovative financing
- Public/Private partnerships
- Multi-agency or multi-state
- Other

#### **Deliverable**

##### **14. Border System Wide Infrastructure Needs Assessment Report and Federal Legislation Memo**

##### **15. Federal Legislation Recommendation Memo**

### ***Task 5: Final Report***

SourcePoint will produce a final report that will document all efforts undertaken by Phase II. The Final Report will include updated literature review findings (and annotated bibliography), and summary of tasks by tasks findings accomplished during Phase II along with a synopsis of Phase I, and 1A key findings.

#### **Deliverable**

##### **16. BINS Phase II Final Report**

### BINS Project Schedule and Budget

Work Elements	BINS Project Timeline (Months)												% Budget Breakdown
	0-2	3-4	5-6	7-8	9-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	
PHASE I													
Task 1													15%
Task 2													10%
Task 3													60%
Task 4													10%
Task 5													5%
Phase I Total Cost \$150,000													
Phase IA													
Task 1													25%
Task 2													18%
Task 3													38%
Task 4													20%
Phase IA Total Cost \$40,000													
Phase II													
Task 1													13%
Task 2													40%
Task 3													10%
Task 4													17%
Task 5													20%
Phase II Total Cost \$150,000													
Project Total												\$340,000	